

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:  cf Form PCT/ISA/220		Date of mailing (day/month/year) cf. Form PCT/ISA/210 (page 2)
Applicant's or agent's file reference cf Form PCT/ISA/220		<b>FOR FURTHER ACTION</b> See paragraph 2 below
International application No. PCT/EP2005/050687	International filing date (day/month/year) 02/16/2005	Priority date (day/month/year) 03/02/2004
International Patent Classification (IPC) or both national classification and IPC F02M61/16		
Applicant ROBERT BOSCH GMBH		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/	Authorized officer Morales, M
Facsimile No.	Telephone No.

Form PCT/ISA/237 (cover sheet) (January 2004)

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International application No.  
PCT/EP2005/050687

**Box No. V** Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	2,6,8,9	YES
	Claims	1,3-5,7	NO
Inventive step (IS)	Claims		YES
	Claims	1-9	NO
Industrial applicability (IA)	Claims	1-9	YES
	Claims		NO

2. Citations and explanations:

WRITTEN REPORT OF THE INTERNATIONAL SEARCH OFFICE  
(SUPPLEMENTARY PAGE) Internat. File No. PCT/EP2005/050687

Zu Punkt V.

1 Document U.S. 5,238,192 A (D1) (cf. column 3, line 14 to column 4, line 18; Fig. 1 - 8) describes a pressure-effected connection of a metal part (14) and a plastic part (30) slipped over the metal part (14) with a press fit, in particular i a fuel injector for internal combustion engines, circumferential ribs being disposed on the outer wall (20) of the metal part (14) one behind the other in the axial direction, the ribs each having a back rising outwardly from the outer wall in the slide-on direction of the plastic part (30), and a flank sharply falling from the back end towards the outer wall, and each rib having disposed in front of it an annular groove (46, 48), viewed in the slide-on direction of the plastic part, which is introduced directly at the foot of the back into the outer wall.

1.1 Document D1 also discloses a fuel valve (10), in particular a fuel injector, for internal combustion engines, having a cylindrical valve body (14) having at least one fuel intake duct, which is formed in the valve body (14) and has an intake opening (22) disposed in the cylinder wall (20), and a fuel filter (30), which is retained by a press fit and has a hollow-cylindrical base element (30) made of plastic and filter mesh (30) which is embedded in the base element (30) and covers the intake openings, the base element of the fuel filter (30) having a hollow-cylindrical design and being designed to be slid over the valve body (14); circumferential ribs being formed on the cylinder wall (20) of the valve body

(14), which are disposed one behind the other in the axial direction, and each has a back which rises from the cylinder wall (20) in an outward direction in the slide-on direction of the fuel filter (30), and a flank which sharply falls from the back end to the cylinder wall, each rib having disposed in front of it, viewed in the slide-on direction of the fuel filter (30), an annular groove (46, 48), which is introduced directly at the foot of the back into the cylinder wall (20) of the valve body (14).

- 1.2 The subject matter of the independent Claims 1, 5 is therefore not novel (Article 33 (2) PCT).
- 1.3 The dependent Claims 2 - 4, 6 - 9 do not appear to include any additional features that, in combination with the features of any other claim to which Claims 2 - 4, 6 - 9 refer back, satisfy the PCT requirements with respect to novelty or inventive activity, since the subject matter of the Claims 3, 4, 7 is known from document D1, the subject matter of the Claims 2, 6 is known from document U.S. 4,938,193 A (D3) (cf. Fig. 1, 2), and the subject matter of the Claims 8, 9 relates to a minor structural modification of the fuel valve according to D1, which is within the scope of what one skilled in the art tends to do due to considerations familiar to him or her.

**Re Point VII.**

- 2 Incompatible with the requirements of Rule 5.1 a) ii) PCT, neither the relevant related art disclosed in document D1 nor this document are indicated in the specification.

2.1 The specification is not in accord with the claims, as stipulated by Rule 5.1 a) iii) PCT.